

REMARKS

Claims 1, 2, 3, 4, 5 and 6 are currently pending in the application. Claim 1 has been amended to clarify (a) that conductive and grounding terminals are arranged around the inner side faces of the chamber of the connector body in a manner permitting light to pass through the bottom of the connector body and (b) that the first and second terminals are provided only on the inner side face. Support for such amendment is found in Figures 1, 2, and 3. Claims 2 and 4 have been amended to present them in independent form, rather than depending from Claim 1. Unlike Claim 1 as currently amended, however, Claims 2 and 4 do not claim "wherein the first terminal and the second terminal are provided only on said inner side face."

The claimed invention provides a module connector by which a module body, which may be a camera module as in Claim 6, is electrically connected by means of a connector body to another system, which may be a cellular telephone as in the embodiment discussed in the specification. The module connector thus comprises, among other features: (a) a connector body having an inner side face defining a chamber to accommodate the module body Figure 2; (b) a first or conductive terminal provided on the inner side face such that a conductive member is brought into contact with the first terminal when the module body is put in the chamber Figure 2, 24; and (c) a second or grounding terminal provided on the inner side face which may also be brought into contact with the conductive member of the module body Figure 2, 27, or engaged with the module body. The claimed invention is configured so that a conductive member of the module body is brought into contact with a grounding terminal of the connector body, thus preventing damage due to static electricity Figure 3, 27. The claimed invention is also configured so that light may pass through the connector body without being blocked by the bottom of the connector body, which is important when the module body is a camera module Figure 1 as in Claim 6. In the prior art, light could not pass through the connector body because conductive and grounding terminals were located at the bottom instead of along the inner sides Figures 4 and 5.

Claims 1, 3, and 5 were rejected under 35 U.S.C. § 102(e) as anticipated by U.S. Patent No. 6,328,574 to Howell et al. This rejection is respectfully traversed on the basis that Howell et al. does not provide first and second terminals only on the inner side face and does not permit light to pass through the bottom of a connector body and does not provide for the removal of static electricity on a module body by bringing the conductive member of a module body into contact with a grounding member of a connector body. Howell et al. concerns an assembly for electronically connecting an integrated circuit package to a system board, while the claimed invention provides a module connector where a module body is electrically connected by means of a connector body to another system. Howell et al. describes power and grounding contacts within a socket for an integrated circuit package but does not provide for configuring such contacts in a manner permitting light to pass through the bottom of the socket or in a manner by which static electricity may be removed to prevent damage when connection to a power contact is made, because some of the connections in Howell et al. are made through the bottom of the socket. The claimed invention is thus patentably distinct from Howell et al. and should be allowed.

Claims 1, 3, and 4 were rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 5,398,154 to Perkins et al. This rejection is respectfully traversed on the basis that Perkins et al. does not permit light to pass through the bottom of a connector body. With regard to Claims 1 and 3, this rejection is further traversed on the basis that Perkins et al. does not provide first and second terminals only on the inner side face. Perkins et al. describes an IC card which is plugged into a card-receiving slot providing access to a space, closed on all sides except for the slot, in which the IC card is accommodated. Light cannot pass through because there are contacts on the side opposite the slot. The claimed invention, by contrast, describes a module connector where a module body is electrically connected to another system by means of a connector body in which conductive and grounding terminals are configured in a manner permitting light to pass through the bottom of a connector body. In addition, the narrow slot shape of the opening into which the IC card fits in Perkins et al. does not contemplate the need to accommodate the aperture of a camera module as in Claim 6 of the claimed invention Figure 1. Furthermore, while the

highly conductive regions 70, 72 of Perkins et al. may be brought into contact with the module, they are not *engaged* with the module body as in Claim 4. The claimed invention is patentably distinct from Perkins et al. and should be allowed.

Claim 2 was rejected under 35 U.S.C. § 103(a) as unpatentable over Howell et al. in view of U.S. Patent No. 4,645,279 to Grabbe et al. on the basis that, while Howell et al. does not provide for a chamber having a rectangular cross-section, Grabbe et al. can be read as making up for that deficiency. This rejection is respectfully traversed on the basis that neither Howell et al. nor Grabbe et al. describes a configuration permitting light to pass through the bottom of a connector body or allowing for the removal of static electricity. Claim 2 should be allowed as patentably distinct from Howell et al. and Grabbe et al., both individually and in combination.

Claim 6 was rejected under 35 U.S.C. § 103(a) as unpatentable over Howell et al. in view of the admitted prior art as described in the Figures 4 and 5 of the application. This rejection is respectfully traversed. As noted above, Howell et al. does not permit light to pass through the bottom of a connector body, which is also the case in the prior art as described in Figures 4C and 5C, where connectors are shown on the bottom. Claim 6 is patentably distinct and should be allowed.

In view of the foregoing, Applicant submits that all of the claims are patentably distinct from the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue. The Examiner is invited to contact the undersigned at the telephone number listed below, if needed.

Applicant hereby makes a written conditional petition for extension of time, if required. Please charge any deficiencies in fees and credit any overpayment of fees to Attorney's Deposit Account No. 50-2041 (Whitham, Curtis & Christofferson).

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Michael E. Whitham', is written over the typed name.

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Application with
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